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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,836	01/13/2006	Nigel P Robinson	020540	8682
23596 7590 08/22/2008 QUALCOMM INCORPORATED 5775 MOREHOUSE DR. SAN DIEGO, CA 92121				
EXAMINER ANWAR, MOHAMMAD S				
ART UNIT 4125		PAPER NUMBER		
NOTIFICATION DATE 08/22/2008		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/537,836

Applicant(s)

ROBINSON ET AL.

Examiner

MOHAMMAD ANWAR

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4125

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-6, 9-14, 17-22 and 25-30 is/are rejected.
- 7) ☐ Claim(s) 7, 8, 15, 16, 23, 24, 31, and 32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 10/537,836.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-849)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to because Figures 1-2 should be labeled with descriptive legends, e.g. NPDU (network protocol data unit). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 14 is objected to because of the following informalities:

In claim 14 line 4 recites "an acknowledgement of receipt" which seems to refer to claim 9 line 9. If this is true, it is suggested to change "an acknowledgement of receipt" to ---the acknowledgement of receipt---.

3. Claims 7, 8, 15, 16, 23, 24, 31 and 32 are objected to under 37 CFR 1.75(c) as being in improper form because they are multiple dependent claims which depend on multiple dependent claims 3, 11, 19, and 27. See MPEP § 608.01(n). Accordingly, the claims 7, 8, 15, 16, 23, 24, 31, and 32 have not been further treated on the merits.

. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-6, 9-14, 17-22, and 25-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1 line 8 recites "the lower data handling level" which has no antecedent basis. Similar problem exists for claim 1 line 9, line 11, line 19, claim 5 line 4, and line 6.

In claim 9 line 7 recites "the lower data handling level" which has no antecedent basis. Similar problem exists in claim 9 line 9, line 14, and claim 13 line 5.

In claim 17 line 11 recites "the lower data handling level" which has no antecedent basis. Similar problem exists in claim 17 line 12, line 14, line 15, claim 21 line 4, and line 6.

In claim 25 line 8 recites "the lower data handling level" which has no antecedent basis.

In claim 5 line 8 recites "the waiting and retransmitting" has no antecedent basis. Similar problem exists in claim 5 line 9, claim 13 lines 7 and 8, claim 21 lines 8 and 9, claim 29 lines 7 and 8.

Claims 2-4 and 6 are rejected because they are dependent on claim 1. Claims 10-12, 14 are rejected because they are dependent on claim 9. Claims 18-22 are rejected because they are dependent on claim 17. Claims 26-30 are rejected because they are dependent on claim 25.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1, 9, 17 and 25 are rejected under 35 U.S.C. 102(e) as being unpatentable by Le et al. (7028094).

For claims 1, 9, 17 and 25, Le et al. disclose a data transfer procedure for transferring data of a data sequence (see column 4 line 31) between a transmitting entity (see column 3 line 4) and a receiving entity (see column 3 line 4), which entities each comprise a higher data handling layer (see col 4 line 17) and a lower data

handling layer (see column 4 line 16), the procedure comprising: transferring down from the higher data handling layer of the transmitting entity to the lower data handling layer of the transmitting entity a data unit of the data sequence, which data unit comprises at least one segment (see column 4 lines 16-18, line 29); transmitting via a transmission link between the transmitting entity and the receiving entity each of the at least one segment from the lower data handling level of the transmitting entity to the lower data handling level of the receiving entity (see column 4 lines 17-19); sending an acknowledgement of receipt of the at least one segment from the lower data handling level of the receiving entity to the lower data handling level of the transmitting entity (see column 4 lines 34-36); transferring up the at least one segment from the lower data handling layer of the receiving entity to the higher data handling layer of the receiving entity in data sequence order (see column 9 line 63-67, column 10 lines 38-42, col 4 lines 45-50, and col 5 lines 10-12); and wherein the higher data handling layer of the transmitting entity is arranged to retain the data unit until such time as an at least implied acknowledgement of receipt of earlier segments in the sequence is sent back from the receiving entity to the lower data handling level of the transmitting entity (see column 3 lines 27-30, column 5 lines 24-50).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 2, 3, 5, 6, 10, 11, 13, 14, 18, 19, 21, 22, 26, 27, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Le et al. in view of Miklos (6301249).

For claims 2, 10, 18 and 26, Le et al. disclose all the subject matter but fails to mention wherein the higher data handling layer of the transmitting entity comprises a store for storing the data unit, and the data unit is retained in the store until the acknowledgement of receipt has been sent back, when the data unit is then removed

from the store. However, Miklos from a similar field of endeavor discloses wherein the higher data handling layer of the transmitting entity comprises a store for storing the data unit (see col 4 line 48), and the data unit is retained in the store until the acknowledgement of receipt has been sent back (see col4 lines 48-49), when the data unit is then removed from the store (see column 4 lines 50-59). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Miklos's storing of packets scheme into Le et al. data transmission scheme. The method can be implemented in the hardware. The motivation of doing this is to provide an error free data transmission.

For claims 3, 11, 19 and 27, Le et al. disclose all the subject matter but fails to mention wherein the at least one segment of each data unit in the data sequence has a position in the data sequence, the lower data handling layer of the transmitting entity comprises a store for storing data pertaining to the position of the at least one segment transmitted therefrom, and the lower data handling layer of the receiving entity comprises a store for storing data pertaining to the position of the at least one segment received thereby. However, Miklos from a similar field of endeavor discloses wherein the at least one segment of each data unit in the data sequence has a position in the data sequence (see column 3 lines 65-67), the lower data handling layer of the transmitting entity comprises a store for storing data pertaining to the position of the at least one segment transmitted therefrom (see column 4 line 48), and the lower data handling layer of the receiving entity comprises a store for storing data pertaining to the position of the at least one segment received thereby (see column 11 lines 23-40).

Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include the Miklos's storing of packets scheme into Le et al. data transmission scheme. The method can be implemented in the hardware. The motivation of doing this is to provide error free data transmission.

For claims 4, 12, 20 and 28, Le et al. disclose all the subject matter determining that the transmission link is broken (see column 3 lines 11 -13), reestablishing the transmitting link (see column 8 lines 43-45) but fails to mention by purging the stores of data in the lower data handling layers of both the transmitting entity and the receiving entity. However, Miklos from a similar field of endeavor discloses by purging the stores of data in the lower data handling layers of both the transmitting entity and the receiving entity (column 11 lines 12-40). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include the storing and purging scheme of Miklos's into Le et al. data transmission scheme. The method can be implemented in the hardware and software. The motivation of doing this is to provide error free data transmission.

For claims 5, 13, 21 and 29, Le et al. disclose wherein the transmitting link is determined to be broken (see column 3 lines 11-13) by: the transmitting entity waiting for a period of time for the acknowledgement of receipt of at least one segment from the lower data handling level of the receiving entity (see column 2 line 67); the lower data handling level of the transmitting entity retransmitting the at least one segment When the acknowledgement of receipt is not received (see column 3 lines 1-2); repeating the waiting and retransmitting (see column 3 lines 3-9); and deciding that the link is broken

after the waiting and retransmission have been repeated a number of times (see column 6 lines 47-54, column 8 lines 40-56).

For claims 6, 14, 22 and 30, Le et al. disclose when the transmitting link is reestablished (see column 8 lines 43-45), transferring down from the higher data handling layer of the transmitting entity to the lower data handling layer of the transmitting entity a data unit of the data sequence for which an acknowledgement of receipt was not received before the transmitting link was broken (see column 2 line 67 and column 3 line 1-2).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rondeau (5734643), Bernhard et al. (20030086415) and Mansfield (6301249).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MOHAMMAD ANWAR whose telephone number is (571)270-5641. The examiner can normally be reached on Monday-Thursday, 9am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dang Ton can be reached on 571-272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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